

THE INDIANAPOLIS RADIO CLUB - FOUNDED IN 1914
(The oldest continuously meeting Amateur Radio Club in the United States)

THE AMACHEWER FOR February, 2002

NEXT MEETING IS February, 8, 2001 at the Indianapolis Training Center.

Our speaker for this meeting is Dave Gingrich K9DC. He is going to do a presentation on IRLP. That stands for Internet Radio Linking Project. This project links repeater and individual sites all over the world. Dave is going to present a new node he has just put on line.

2002 IRC Officers:

President:	Bill Goodall-K9DBY	255-4749
Vice President:	Tom Chance- K9XV	783-1093
Secretary:	Maria Chambers-KB9RLG	357-6308
Treasurer:	Wade Kingery-W9JGZ	255-5191
Chief Operator:	John Lee- W9GRE	251-3793
News Editor:	Dave Kalmikoff-W9DEK	255-9285

Minutes from our January, 2002 meeting:

Not available as of press time

ARRL News

- * President Bush gives ham radio a try!
- * ARRL to pull out all stops on 70-cm band threat
- * Members' donation will help preserve ham radio history
- * ARRL Field Day changes announced
- * RFI complaints have Ohio ham on the ropes
- * New distance records set on GHz bands
- * Solar Update

* IN BRIEF:

Amateur Radio Emergency Communications Course registration
Mystery satellite identified
Broadcasters may borrow amateur band for Winter Olympics coverage
Olympic site is NOAA Weather Radio-ready, thanks to hams
Alan H. McMillan, W0JJJ, SK
FCC converting ATINs to FRNs
Man injured installing antenna
Hamfests change dates
AMSAT-UK colloquium seeks papers

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==>PRESIDENT BUSH ADDRESSES FLORIDA ARES NET

President George W. Bush spoke January 31 via Amateur Radio to members of the Northern Florida Amateur Radio Emergency Service Net (NFAN). The president was in Florida to spotlight five volunteer groups for their value to the new Office of Homeland Security--among them the Volusia County Amateur Radio Emergency Service (ARES).

"I want to thank all the volunteers who help make sure that Florida is prepared for any kind of emergency," the president said in part, after checking in around 9:15 AM to a regular session of the 75-meter ARES net. "I want to thank you all for helping your communities be prepared."

Northern Florida ARRL Section Manager Rudy Hubbard, WA4PUP, said Bush spoke from a portable station set up at a Daytona Beach-area fire station. At the request of ARES Volusia County Emergency Coordinator Joette Barnett, KG4HPN, John Schmidt, AF4PU, and Clifford Fraser, KE4HIY, arranged to have the station ready as a demonstration of Amateur Radio's role in emergency preparedness and in the hope that Bush would be willing to address the 75-meter net. Hearing the president check into the net was a pleasant surprise, Hubbard said.

ARRL President Jim Haynie, W5JBP, said he was "extremely gratified" that President Bush recognized the valuable service Amateur Radio operators provide in times of emergencies. "I know that all hams in the United States stand ready to do their part in America's Homeland Security Program," Haynie commented. Haynie has said that defining Amateur Radio's role in homeland security would top his list of initiatives for his second term.

Hubbard said a copy of proposed expanded Amateur Radio antenna (PRB-1) legislation was given to the President and to the president's brother, Florida Gov Jeb Bush, for possible introduction in next year's Florida legislative session. "We Amateur Radio operators will volunteer however we're needed, and maybe it will be seen that we can greatly help the nation if we have the antennas we need," Hubbard commented. The proposed bill would seek to extend Florida's PRB-1 law to include private deed covenants, conditions and restrictions.

Bush's stop in Florida was part of a swing through the southeastern US, which also included stops in North Carolina and Georgia. The Daytona Beach event marked a rare appearance on ham radio by a sitting president. Former President Gerald Ford spoke via a ham radio satellite hookup in 1986.

==>ARRL GOING TO THE MAT ON 70-CM BAND THREAT

ARRL officials met recently with FCC staff members as part of the League's effort to stave off a band threat on 70 cm. ARRL General Counsel Chris Imlay, W3KD, and Technical Relations Manager Paul Rinaldo, W4RI, delivered an ex parte presentation to FCC Office of Engineering and Technology staffers on January 14. At issue was SAVI Technology's plan--already

tentatively agreed to by the FCC--to deploy unlicensed transient RF identification devices between 425 and 435 MHz at much higher field strengths and duty cycles than Part 15 rules now permit for such devices. RFID tags are used to track and inventory parcel shipments.

"We told them that this was the worst possible choice of bands for these RFIDs," Imlay said. "Besides, there's no technical justification for that choice of frequencies." The request to use 70 cm has more to do with economics than technology, he said, because SAVI needs to bring down the cost of RFIDs in order to make a profit.

Imlay added that the ARRL would "do whatever it takes" to stave off the threat, including further direct appeals to FCC staff. The ARRL plans to file "strongly worded" comments on the SAVI petition by the February 12 comment deadline. Reply comments are due by March 12, 2002. Imlay said he was assured that SAVI's request "was not a done deal."

The FCC acted on the SAVI request last October in an FCC Notice of Proposed Rule Making and Order (ET Docket 01-278). The ARRL argued in comments filed last March that the field strengths and duty cycles SAVI proposed for its RFID tags as Part 15 "periodic radiators" were unreasonable and "would undoubtedly seriously disrupt amateur communications in one of the most popular of the Amateur Service allocations," particularly for weak-signal enthusiasts.

The League also believes the FCC lacks the statutory authority to permit the RFID tags under its Part 15 rules in the configuration SAVI has requested. The ARRL argues that under the Communications Act of 1934, such devices with substantial interference potential must be licensed. The ARRL also has suggested that SAVI pick one of the Industrial, Scientific and Medical (ISM) bands instead of 425-435 MHz.

The ARRL's January 14 ex parte presentation was complemented by an interference study prepared by ARRL Lab Supervisor Ed Hare, W1RFI, and ARRL Senior Engineer Zack Lau, W1VT. A copy of the interference study and more information is available on the ARRL Web site "Band Threats" page <<http://www.arrl.org/announce/regulatory/rm-1005/SaviExParte.pdf>>.

==>ARRL MEMBERS' DONATION TO HELP PRESERVE AMATEUR RADIO HISTORY

A generous donation from an Amateur Radio couple from Dallas will support the ARRL's efforts to preserve ham radio's history. ARRL Chief Development Officer Mary Hobart announced the contribution from Barry Merrill, W5GN, and Judith Spencer Merrill, KA5PQD, this week. The Merrills are ARRL life members.

"ARRL is proud to acknowledge the Merrills' exceptional generosity in support of the Preservation of Artifacts Fund," Hobart said. "Their donation is dedicated to the conservation of the valuable books, papers and artifacts that define the history of Amateur Radio."

The Merrills' desire to contribute was prompted in part by recent exploratory efforts--primarily by ARRL Pacific Division Director Jim Maxwell, W6CF, and his wife, Trudy, KC6NAX--to assess and inventory papers, pamphlets, correspondence and photographs now stored in an attic room at ARRL Headquarters.

The Merrills said the recent discovery of very early correspondence and documents by the founders and early leaders of Amateur Radio "comprise a unique history that will be lost forever without archival preservation." They expressed the hope that the documentary materials one day might be made accessible to the public, at least in digital form.

The ARRL Historical Committee, chaired by New England Director Tom Frenaye, K1KI, says the Maxwells' efforts helped increase sensitivity to the historical importance and value of some of the items on display or in daily use at Headquarters. For their part, the Maxwells say the uncatalogued material in the attic was the tip of the iceberg of a possible historical treasure trove.

In his report to the Historical Committee, Maxwell emphasized the importance of moving the documents and photographs into a more friendly environment. The Historical Committee wants to be able to inventory and store as many of the documents and photographs as possible over the next few months.

Hobart invited other League members to join the Merrills in helping to conserve Amateur Radio's documentary history. "The conservation project supported so generously by Barry and Judy Merrill will take months, if not years," she said. "If you would like to join them in building the historical record of ARRL, we would be pleased to hear from you."

Contact Chief Development Officer Mary Hobart, mhobart@arrl.org; 860-594-0397, or send contributions to the Preservation of Artifacts Fund, c/o Chief Development Officer Mary M. Hobart, ARRL, 225 Main St, Newington CT 06111.

==>ARRL FIELD DAY, AFFILIATED CLUB COMPETITION CHANGES ANNOUNCED

The ARRL has adopted rule changes affecting Field Day and the ARRL Affiliated Club Competition program. The primary Field Day change--effective with this year's event June 22-23--phases out the Novice-Technician station and replaces it with a new station category, the "Get-On-The-Air"--or GOTA--station.

A GOTA station is intended for operation by Novice and Technician operators or by generally inexperienced or inactive amateurs as well as by as-yet-unlicensed or "under-licensed" operators working under the privileges of a licensed control operator (third-party traffic rules apply--see the International Third Party Traffic page on the ARRL Web site <<http://www.arrl.org/FandES/field/regulations/io/3rdparty.html>>). Under the

revised rules, any Class A Field Day entry operating at least two transmitters may include a GOTA station, which will not count as an additional transmitter for the purpose of entry category.

The GOTA station may operate on any Field Day band and mode, but only one GOTA transmitter may be in use at any given time. The GOTA station may complete up to 400 QSOs to be counted toward the group's total Field Day score. A Field Day group can claim 100 bonus points if its GOTA station successfully completes 400 QSOs. The GOTA station does not affect the additional VHF/UHF station provided under Field Day rule 4.1.2.

Field Day 2002 will mark the first in which stations throughout the Americas have been invited to participate. As approved at the July 2001 ARRL Board of Directors' meeting, all International Amateur Radio Union Region 2 countries--North and South America--may take part in Field Day starting this June.

Complete Field Day rules and information packet will be available on the ARRL Web Contest Forms and Rules page <<http://www.arrl.org/contests/forms>> in early February. Field Day 2002 pins and T-shirt may be ordered now via the ARRL Web catalog <<http://www.arrl.org/catalog/?category=&words=Field+Day+Pin>>.

Changes to the ARRL Affiliated Club Competition program also were included in the report of the Membership Services Committee (MSC), presented to the ARRL Board of Directors at its January meeting. In accordance with the advice of the ARRL Contest Advisory Committee, five specific affiliated club competition changes will go into effect November 1. Under the revised rules:

- * The requirement that a member must attend at least two club meetings a year in order to be allowed to submit a score for a club in the unlimited and medium categories has been altered. The new rules will allow participation by "a member in good standing, as defined by the club."
- * Medium and unlimited clubs now may define their club service area either as a 175-mile radius circle or as an entire ARRL section. This change will allow clubs from larger states that encompass entire ARRL sections to compete with each other.
- * The percentage of operators who must be members of a club in order for the club to claim a score from a multioperator station has been reduced from 66% to 50%.
- * A station owner no longer must be a member of a club in order for a guest operator at the station to claim the score for that club.
- * Canadian clubs that are full Radio Amateurs of Canada affiliates now may participate in the ARRL Affiliated Clubs Competition.

These changes affect ARRL contests that include a club competition--January

VHF Sweepstakes, the ARRL International DX Contest, the September VHF Party, the ARRL November Sweepstakes, the ARRL 160-Meter Contest and the ARRL 10-Meter Contest.

Complete rules for all ARRL-sponsored operating events are available on the ARRL Web site <<http://www.arrl.org/contests/announcements/>>. For more information, contact ARRL Contest Branch Manager Dan Henderson, N1ND, n1nd@arrl.org.

==>RFI COMPLAINTS, CITY COUNCIL INVOLVEMENT FRUSTRATE MICHIGAN AMATEUR

Rob Underwood, W8YRB, says RFI complaints have him at his wit's end. The Wyoming, Michigan, ARRL member says his efforts to resolve some neighbors' complaints of stubborn interference are at an impasse. To add to his frustration, the Wyoming City Council now has asked the FCC to step in, and the situation has erupted into a media spectacle that, he says, hasn't done much for ham radio's image.

The FCC's position with respect to RFI to consumer devices is that the consumer device--telephone, stereo, TV or other appliance--most often is to blame, and that consumers need to deal with appliance manufacturers.

Underwood says he's gone the extra mile to resolve interference complaints, but one neighbor a half block away has become especially intractable, pinning blame for interference to her telephone and touch lamp squarely on him. The woman ultimately complained to the city council, which met January 21 and unanimously agreed to contact the FCC.

Underwood said city council members "threw their hands in the air, and most of them said it was my station that needed to be 'filtered' and didn't want to hear what my solutions were." Twenty one amateurs reportedly attended the council meeting on Underwood's behalf, and one Council member praised Underwood's attempts to assist and to educate everyone.

Underwood said, however, that several other neighbors turned up at the session with new RFI complaints he hadn't heard before. He's volunteered to assist them. Underwood says media coverage has focused on the neighbors' complaints rather than on his efforts to respond to them.

The neighbor's touch lamp seems especially susceptible to RFI and even flickers when he keys his 100-W mobile transmitter while driving by her house, Underwood said. Although he installed some ferrite chokes on the lamp's power cord, the problem persisted. The neighbor has refused further offers of help.

Underwood reports that his own home is essentially free of RFI problems, with the exception of his cordless telephones when he runs his amplifier. He said he installed RF chokes on telephone equipment for his immediate neighbors who had complained of problems, and they have not reported any interference since.

Underwood has the full support of ARRL Michigan Section Manager Dick Mondro, W8FQT, who noted that the FCC Detroit Field Office was also aware of the problem and has been cooperating in resolving the issue.

ARRL provides information and resources to deal with RFI problems on the ARRL Web site's RFI pages <<http://www.arrl.org/tis/info/rfigen.html>>.

==>NEW RECORDS SET AT 241 GHZ AND 322 GHZ

Contacts made in mid-December "on the ultra-highs" by microwave enthusiast Brian Justin, WA1ZMS, set new North American records on two bands that amateurs don't encounter routinely--241 and 322 GHz.

On December 15, Justin, operating W2SZ/4 in Virginia, made contact with Gordon Howell, WA4RTS/4, on the 322-GHz band "over a whopping distance of 0.05 km (about 164 feet)," he said. Both stations were located in FM07ji.

"I know it's not much as far as DX is concerned, but it's on par with DB6NT's 411-GHz DX record and is a North American first for the 300-GHz band, excluding light," he added.

About an hour later another QSO was made between W2SZ/4 and WA4RTS/4 on 241 GHz over a distance of 1.1 km (approximately 3609 feet). "This is a North American first for the band and a new NA record at the same time," Justin said.

Both contacts were made using modulated CW and wideband FM receivers. The power output on 322 GHz was estimated to be just a few microwatts, while the power on 241 GHz was measured at 0.75 mW. The stations were constructed of 80.6-GHz free running Gunn oscillators driving GaAs diode triplers. Both setups used homebrew six-inch parabolic dishes with hyperbolic sub-reflectors.

Justin said the next step is to phase-lock the Gunn oscillators to crystal oscillators in the future to permit using narrowband modulation, "thus resulting in better DX." WA1ZMS estimated that over the span of his ham radio career, he's operated at least once on every available Amateur Radio band.

==>SOLAR UPDATE

Solar seer Tad Cook, K7VWV, Seattle, Washington, reports: Average solar flux was up nearly 30 points this week, and average sunspot numbers rose by nearly 15. Solar flux peaked on Tuesday at 261 and is probably headed down for a while. Predicted solar flux for Friday through Monday is 250, 245, 240 and 235.

There was an M-1 solar flare at 2005 UTC on Saturday, and the flare may have enhanced the daily solar flux reading for that day--which was 256.5. This

reading is at noon local time (2000 UTC) in Penticton, British Columbia, but there is also a morning reading and a third one in the afternoon. The morning reading for that day was 244.1 and the afternoon flux was 248.8.

Saturday's flare didn't cause any noticeable geomagnetic disturbance. Friday had a brief period when the planetary K index was 4, and the high-latitude Alaska College K index was 5, but the rest of the period was so quiet that, for all week, the A index was in the single digits.

Sunspot numbers for January 24 through 30 were 173, 196, 194, 189, 207, 214 and 210, with a mean of 197.6. The 10.7-cm flux was 230.8, 234.8, 256.5, 248, 259.8, 261 and 256.3, with a mean of 249.6. Estimated planetary A indices were 4, 8, 7, 7, 6, 4 and 3 with a mean of 5.6.

==>IN BRIEF:

* Amateur Radio Emergency Communications Course registration: Registration for the Level I Amateur Radio Emergency Communications Course (EC-001) will open Monday, February 4, 2002, 4 PM Eastern Time. Registration for Level II will open on Monday, February 11; registration for Level III will open February 18. Courses must be completed in order, starting with Level I. To learn more, visit the ARRL Certification and Continuing Education Web page <<http://www.arrl.org/cce>> and the C-CE Links found there. For more information, contact Certification and Continuing Education Coordinator Dan Miller, K3UFG, cce@arrl.org.

* Mystery satellite identified: AMSAT News Service reports that a "mystery satellite" that had been transmitting frequency-modulated AFSK and CW on 144.100 MHz for several days was identified as MAROC-TUBSAT, an Earth-sensing spacecraft owned by the Royal Center for Remote Sensing--a Moroccan government agency. The satellite was placed into a polar orbit by a Russian launcher on December 10. When informed of the interference to amateur operations, the agency immediately shut down the 144.100-MHz transmitter. MAROC-TUBSAT also has a downlink at 436.075 MHz, which is switched on over North Africa and Europe when the control stations in Morocco and Germany are active. It has not been heard elsewhere. IARU Satellite Adviser Hans van de Groenendaal, ZS6AKV, is seeking more information from ARRAM--the Moroccan national radio society.--ANS via Ray Soifer, W2RS

* Broadcasters may borrow amateur band for Winter Olympics coverage: The FCC has granted the Salt Lake Organizing Committee a Special Temporary Authority to utilize the 13 centimeter band (2300-2305 and 2390-2450 MHz) for broadcast auxiliary operations at Olympic venues through March 1. While the STA does not forbid amateur use of the band between now and then, it does authorize the Broadcast Auxiliary Service as a co-secondary user until March 1. "These types of STAs are not unusual during major broadcast events, and the Olympic Games qualify," said ARRL regulatory correspondent Brennan Price, N4QX. The FCC has designated the Salt Lake Organizing Committee as

the single point of contact for coordinating operations under 74.24 of the Commission's rules through March 31, 2002, for the 2002 Winter Olympic Games and Paralympic Games to be held in Salt Lake City, Utah.

* Olympic site is NOAA Weather Radio-ready, thanks to hams: With the help of local Amateur Radio operators in the Park City and Salt Lake City, Utah, area, the Olympic village in Park City has 24-hour NOAA Weather Radio coverage. "There was absolutely no weather radio coverage in Park City due to the mountain range between our SLC transmitter and Park City," said Joe Lachacz, KF6NHD, a NOAA Weather Radio Specialist. Steve Mainwaring NZ6Z, Don Lloyd, KD7BA, and Greg Lundell, K7UHP, installed the NOAA Weather Radio on Quarry Ridge in Park City. Olympic venues in Park City include bobsledding, luge and downhill skiing.--Joe Lachacz, KF6NHD

* Alan H. McMillan, W0JJK, SK: Alan McMillan, W0JJK, of Council Bluffs, Iowa, died January 15. He was 71. An ARRL member for more than 50 years, McMillan was perhaps best known to an earlier generation of amateurs as the sales manager for World Radio Labs (WRL), where he also contributed to the design of the Globe series of transmitters. Later, he worked on Galaxy radios--also part of the ham radio line offered by WRL's Leo Meyerson, W0GFQ. After retiring from WRL, McMillan founded Hobby Industries, selling ham gear and, until his death, operating Hi-Manuals <<http://www.hi-manuals.com/HomePage.htm>>, which continues to offer reprints of operating and service manuals for older ham gear.

* FCC converting ATINs to FRNs: Acronym alert! Acronym alert! Everyone to get from street! (with apologies to the old movie, The Russians are Coming, the Russians are Coming!) The FCC is completing the conversion of Assigned Taxpayer Identification Numbers (ATINs) to Commission Registration System (CORES) FCC Registration Numbers (FRNs). ATINs were issued to amateur applicants--to clubs and to non-US citizens--who did not qualify for a Social Security Number, so they could register for the FCC's Universal Licensing System (ULS). The FCC issued most ATINs, but some were issued by a Volunteer Examiner Coordinator (VEC) or Club Station Call Sign Administrator (CSCSA). An FCC spokesperson said all ATINs should be converted to FRNs by mid-February. The FCC has discontinued the use of ATINs, since the CORES registration process provides an exception for club stations and non-citizens to obtain an FRN. The FRN then may be used to access the ULS, which incorporates the Amateur Service licensing database (among other services).

* Man injured installing antenna: The Electrical Contractor Network <<http://electrical-contractor.net/>> reports that an Indiana man--apparently not an amateur--was critically burned when the antenna he was trying to install came in contact with an overhead power line. The account says that 21-year-old Steven Long of Brazil suffered third-degree burns over half his body in the incident, which also burned the tree to which he was attaching the antenna. When emergency workers arrived, they found the antenna draped across the power line, the tree charred from the fire and Long hanging onto a lower branch. Brazil firefighters had to wait for utility workers to cut

power to the line before they could rescue Long. See the Electrical Contractor Network Web site
<<http://electrical-contractor.net/ubb/Forum14/HTML/000146.html>> for additional details.--submitted by George Corron, AF4JH

* Hamfests change dates: Radiofest 2002 in Monterey/Seaside, California, has changed its date to February 23. The hamfest, sponsored by the Naval Postgraduate School Amateur Radio Club, will be held at the General Stilwell Community Center (old Fort Ord), 4260 Gigling Rd. For more information, contact chairman Brian Broggie, W6FVI, w6fvi@arrl.net, or visit the Radiofest Web site <<http://www.k6ly.org/radiofest>>. The Red River Radio Amateurs have changed the date of their hamfest in West Fargo, North Dakota, to March 16 at the Red River Valley Fairgrounds. For more information, contact Mike Woytassek, N0VGV, mikew@rrra.org, or visit the club's Web site, <<http://www.rrra.org>>.

* AMSAT-UK colloquium seeks papers: The 17th AMSAT-UK Colloquium, set for July 26-28 at University of Surrey, Guildford, Surrey, United Kingdom, invites speakers to submit papers about Amateur Radio space and associated activities, both for the event and for the Proceedings, to be published following the event. Authors are asked to present their papers in person if possible. Offers of papers should be submitted as soon as possible; the final date for full documents to be received is mid-June 2002. Send submissions to Richard Limebear, G3RWL, g3rwl@amsat.org, or to 60 Willow Rd, Enfield EN1 3NQ, UK. AMSAT-UK also invites suggestions for program topics. This year's Colloquium will include sessions aimed specifically at beginners to Amateur Radio satellite operating.--ANS via Richard Limebear, G3RWL

Miscellaneous:

Please feel free to e-mail (w9dek@arrl.net) or call me (255-9285) with any pertinent News for next month's Amachewer.

73,

David Kalmikoff, W9DEK
News Editor for the Indianapolis Radio Club